

SOME SPIDERS AND OTHER ARACHNIDA FROM SOUTHERN ARIZONA.

By NATHAN BANKS,
Custodian, Section of Arachnida.

Hardly anything is known regarding the spiders of Arizona. Count Keyserling described a few species from the Marx collection, and in recent years Simon has described several curious forms collected, doubtless, by Morrison. Dr. McCook, in his *American Spiders*, records a few species of Epeiridae from this region. Arizona is especially interesting for two reasons: first, because of its proximity to Mexico, and second, because the isolated mountainous regions give rise to many local faunas.

In the collection made by Mr. E. A. Schwarz there are 55 species—43 spiders and 12 other arachnids. Eight species are described as new. Five species, namely, *Sparassus minar.*, *Misumena pallida*, *Misumena fidelis*, *Oxyopeidon molestum*, and *Ammotrecha peninsulana*, have not previously been recorded north of the Mexican boundary. About twenty of the spiders are of rather general distribution in the United States, at least in the southern portions. Most of the others are more or less restricted in their range, and about thirteen of the spiders are known only from Arizona. Only one species, *Philodromus aureolus*, also occurs in Europe.

ARANEIDA.

Family THERAPIOSIDÆ.

EURYPELMA HENTZI (Girard).

Male and female from Oracle, in July. Young, apparently of this species, from Santa Rita Mountains, May.

Family SCYTODIDÆ.

PLECTREURYS TRISTIS Simon.

One from Catalina Springs, April. A rather rare spider.

Family PHOLCIDÆ.

PHYSOCYLUS GIBBOSUS (Taczanowski).

An immature specimen, probably of this species, from Catalina Springs, April.

Family DRASSIDÆ.

PROSTHESIMA ATRA (Hentz).

One male from Catalina Springs, April.

PROSTHESIMA ARIZONENSIS, new species.

Length of female, 7 mm.

Cephalothorax yellowish brown, black around eyes; mandibles rather darker than cephalothorax; legs yellowish brown, rather darker on tips; sternum more reddish brown, black on margin; abdomen dull black above and below, spinnerets pale yellowish. Cephalothorax considerably narrowed in front, quite flat, dorsal groove distinct. Posterior eye-row slightly procurved; posterior median eyes oval, less than their diameter apart, about as close to the equal posterior side eyes; anterior eye-row nearly straight; anterior median eyes fully diameter apart, nearly touching the equal anterior side eyes, about as large as posterior median eyes; quadrangle of median eyes much higher than broad, and as broad in front as behind. Legs of moderate length, tibia I with one pair of spines at tip beneath, metatarsus I with three pairs below, one of which is at the tip; metatarsus not scopulate; many spines on hind legs. Sternum nearly oval, broadest behind coxæ II. Abdomen depressed, truncate at base, nearly one and three-fourths as long as broad, broadest behind middle; epigynum shows a narrow transverse cavity open behind into a short, widening cavity.

One female from Catalina Springs, April.

Type.—Cat. No. 5424, U.S.N.M.

PROSTHESIMA SCHWARZI, new species.

Length of female, 12 mm.

Cephalothorax yellowish brown, black around eyes; mandibles yellow-brown; sternum more red-brown; legs yellow-brown, anterior metatarsi and tarsi much darker; abdomen pale yellowish gray above and beneath, black hairs at base, spinnerets more yellow. Cephalothorax rather broad in front. Posterior eye-row plainly procurved, not broader than anterior eye-row, eyes widely separate; the posterior median eyes oval, more than their diameter apart, more than twice their diameter from the smaller posterior side eyes; anterior eye-row little procurved, anterior median eyes larger than posterior median eyes, about diameter apart, much closer to the nearly equal anterior

side eyes, quadrangle of median eyes about one and one-half as high as broad. Anterior legs quite stout, hind pairs much more slender; metatarsi and tarsi I and II with scopulas; tibia I with one spine below near base, one near middle, and a pair at tip; metatarsus I with one pair near base. Abdomen rather thick, truncate at base, more than one and one-half times as long as broad; epigynum shows a large, oblong corneus area, in the hind part of which is an elliptical cavity, nearly filled by a plate from in front.

One female, Catalina Springs, April.

Type.—Cat. No. 5425, U.S.N.M.

Family CLUBIONIDÆ.

CHEMMIS UNICOLOR, new species.

Length of female, 14 mm.

Cephalothorax reddish brown, rather darker in front; mandibles dark red-brown; sternum yellow-brown, dark on sides; legs yellowish brown on base, darker and more red-brown beyond; abdomen pale brown above and below, darkest near tip. Cephalothorax rather broad in front, moderately elevated; mandibles large and stout. Posterior eye-row longer than anterior eye-row, slightly procurved; posterior median eyes round, a little more than diameter apart, nearly twice diameter from slightly smaller posterior side eyes; anterior eye-row nearly straight, anterior median eyes hardly as large as posterior median eyes, scarcely diameter apart, about diameter from scarcely larger anterior side eyes; quadrangle of median eyes rather higher than broad, broader behind than in front. Three teeth on hind margin of fang-groove. Legs rather stout, but long, IV a little longer than I, and more slender. Five pairs of spines under tibia I, metatarsus I with 3 pairs, in each case the apical pair is short. All tarsi, metatarsi I and II, and apex of III and IV, are scopulate. Two spines above on tibia III. Lip half the length of maxillæ, hollow truncate at tip. In front of spinnerets is a curious truncate lip.

One female from Santa Rita Mountains, June.

Type.—Cat. No. 5426, U.S.N.M.

Differs from the one species of the genus in having anterior median eyes not larger than anterior side eyes, but otherwise agrees very well in structure.

TRACHELAS TRANQUILLA (Hentz).

Several specimens from Catalina Springs, April, May; and Santa Rita Mountains, May, June.

ANYPHÆNA, species.

Immature specimens from Santa Rita Mountains, June.

THARGALIA LUCTUOSA, new species.

Length of female, 7.8 mm.; cephalothorax, 3.5 mm.; tibia + patella I, 3.4 mm.

Cephalothorax pale reddish brown, rather darker on the sides, clothed in the middle with yellowish-white hairs; abdomen black above, with white marks—a somewhat triangular mark in front, connected behind to a broad band; behind this are two white spots, and beyond at near middle of length are two transverse white patches; behind these are two small white dots, and near tip a white band, extreme tip black; the sides show two broad oblique bars, both near base; venter brown; sternum pale red-brown; legs pale reddish brown, yellowish on anterior pairs beyond patellæ, femur III pale at base, brown beyond and on part of patella and tibia, and most of metatarsus; femur IV pale at base, dark brown beyond, patella and tibia black, the latter with prominent basal and apical white bands, metatarsus black. Cephalothorax rather slender, narrow in front; eyes close together, anterior row straight, subequal, and at equal distances, posterior row procurved, posterior median eyes farther from each other than from the equal posterior side eyes; sternum truncate in front, rounded on sides, pointed behind. Two pairs of spines under tibia I, two pairs under metatarsus I, three pairs under tibia IV, and one above near tip. Entire dorsum of abdomen rather tough, but no distinct shield. The epigynum shows two approximated elliptical cavities; in the anterior part of each is a deeper cavity.

One female from Santa Rita Mountains, May.

Type.—Cat. No. 5427, U.S.N.M.

Family THERIDIIDÆ.

LATHRODECTUS MACTANS (Fabricius).

One female from Oracle, July.

LITHYPHANTES, species.

One female from Oracle, July, near to *L. fulvus*, but apparently distinct; at least a color variety.

DIPCENA PARVULA, new species.

Length of female, 2.2 mm.

Cephalothorax, legs, mandibles, and sternum dark yellowish brown, black in eye region; abdomen black. Cephalothorax high, projecting in front, clypeus concave. Posterior eye row nearly straight; posterior median eyes less than diameter apart, more than diameter from slightly smaller posterior side eyes; anterior eye row (seen from above) recurved; the anterior side eyes touching posterior side eyes, and of

equal size; the anterior median eyes larger than other eyes, and placed on the front of the head at highest point, about their diameter apart, and much closer to the smaller anterior side eyes; quadrangle of median eyes much broader in front than behind, and a little higher than broad behind. Palpi heavy. Legs rather short and stout. Abdomen large, from above as broad in front as behind, and equally rounded each end, about once and one-fourth as long as broad, quite high, and projecting behind over the spinnerets. The region of epigynum is rather prominent, and from behind shows a simple opening.

One specimen from Catalina Springs, April.

Type.—Cat. No. 5428, U.S.N.M.

Family EPEIRIDÆ.

EPEIRA GEMMA McCook.

Santa Rita Mountains, May (young); Fort Grant, July [Hubbard].

EPEIRA PROMPTA Hentz.

Catalina Springs, May, April; Oracle, July. They are of the form described by McCook as *E. conchlea*.

EPEIRA LABYRINTHEA Hentz.

Catalina Springs, May.

EPEIRA ARIZONENSIS Banks.

A male and young specimens from Madera Canyon, Santa Rita Mountains, June.

LARINIA DIRECTA (Hentz).

Catalina Springs, April.

TETRAGNATHA GRALLATOR Hentz.

A young male from Santa Rita Mountains.

Family SPARASSIDÆ.

SPARASSUS MINAX Cambridge.

A male from Santa Rita Mountains, May, appears to belong to this Mexican species, previously unknown in our country.

OLIOS FASCICULATUS Simon.

Sudala simoni CAMBRIDGE.

Olios giganteus KEYSERLING.

Several specimens from Catalina Springs, May (young); Madera Canyon, Santa Rita Mountains, June; and Oracle, July. I suspect

that this is the same as the *Ocyptete testacea* of Koch,¹ in which case Koch's name will have priority.

SELENOPS, species.

A young specimen from Madera Canyon, Santa Rita Mountains, possibly belonging to *S. nigromaculatus* Keyserling.

Family THOMISIDÆ.

MISUMENA PALLIDA Cambridge.

A few females from Santa Rita Mountains, June, and Oracle, July, probably belong to this species.

MISUMENA FIDELIS Banks.

A female from Catalina Springs, April, appears to belong here.

CORIARACHNE VERSICOLOR Keyserling.

Females from Catalina Springs, May, and Madera Canyon, Santa Rita Mountains, June.

PHILODROMUS MARGINELLUS, new species.

Length of female, 15 mm.

Cephalothorax pale dirty whitish, a purer white V-mark and a median anterior line, sides evenly and quite broadly margined with brown. Abdomen dirty white above, brown on the anterior sides, and on the posterior sides darker brown, sharply marked off from the pale above; on posterior median portion of dorsum is a double series of dark marks, converging toward tip. Legs pale, darker at tips of femora and on bases of anterior tibiae, elsewhere with a few scattered brown dots. Sternum and venter white, the latter margined each side with brown. Cephalothorax about as broad as long, a little shorter than femur I; posterior median eyes slightly larger and farther apart than anterior median eyes. Abdomen large, pointed behind; the epigynum shows a subtriangular cavity, traversed by a median septum, broader behind than in front.

A female, Santa Rita Mountains, June.

Type.—Cat. No. 5429, U.S.N.M.

PHILODROMUS AUREOLUS Walckenaer.

One specimen from Oracle, July.

PHILODROMUS, species.

One female from Catalina Springs, May, of uncertain position, quite large, pale, and dorsum marked with brown.

¹Die Arach., IV, 1838, p. 81, fig. 303.

TMARUS CAUDATUS (Hentz).

Young specimens from Santa Rita Mountains and Catalina Springs.

Family LYCOSIDÆ.

LYCOSA SCALARIS (Thorell).

One male from Santa Rita Mountains, May.

LYCOSA SCUTULATA Hentz.

A young specimen from Santa Rita Mountains.

Family OXYOPIDÆ.

PEUCETIA VIRIDANS (Hentz).

Several specimens from Catalina Springs, May; Madera Canyon, Santa Rita Mountains, June.

OXYOPEIDON MOLESTUM Cambridge.

Several immature specimens from Catalina Springs, Santa Rita Mountains, and Oracle appear to agree with this species.

Family ATTIDÆ.

PHIDIPPUS MEXICANUS Peckham.

A few specimens from Santa Rita Mountains, June (young); and Oracle, July.

PHIDIPPUS, species.

An immature specimen from the Santa Rita Mountains, in June. The abdomen is dark, with a yellowish band at base, near middle a transverse row of four white dots, toward tip an oblong white mark each side, and a white dot each side just above the spinnerets.

DENDRYPHANTES RETARIUS (Hentz).

Specimens from Madera Canyon, Santa Rita Mountains, all in June.

DENDRYPHANTES NUBILUS (Hentz).

A female from Santa Rita Mountains, June.

DENDRYPHANTES, species.

An immature male of an apparently undescribed species from Santa Rita Mountains, May.

HABROCESTUM, species.

A female from Oracle, July. Cephalothorax dark; anterior legs dark, posterior pairs paler, not plainly marked; venter pale; abdomen

above dark, with white marks on the posterior sides in the usual manner. Can not be named without male.

HABROCESTUM, species.

One female from Santa Rita Mountains, June. Smaller than the preceding; cephalothorax brown; legs pale, with small brown blotches; venter pale; dorsum pale, with a large black mark containing a central pale spot. Almost certainly new, but better not described from this sex.

ASTIA MOROSA Peckham.

A female from Santa Rita Mountains, May.

MARPTUSA CALIFORNICA Peckham.

One from Catalina Springs, April.

CYRBA TÆNIOLA (Hentz).

Two specimens from Catalina Springs, May, and Santa Rita Mountains, June.

SYNAGELES SCORPIONA (Hentz).

One specimen from Catalina Springs.

PHALANGIDA.

LIOBUNUM TOWNSENDI Weed.

One specimen from Madera Canyon, Santa Rita Mountains, May.

TRACHYRHINUS FAVOSUS (Wood).

One specimen from Madera Canyon, Santa Rita Mountains, May.

SCORPIONIDA.

VEJOVIS SPINIGERUS Wood.

Three specimens from Madera Canyon, Santa Rita Mountains, June.

CENTRURUS CAROLINIANUS (Beauvois).

Two specimens from Oracle, July, seem to belong to this species, but are very pale in color.

PSEUDOSCORPIONIDA.

IDEOBISUM THREVENETI (Simon).

One specimen from Madera Canyon, Santa Rita Mountains, May.

CHELIFER HÜBBÄRDI, new species.

Length, 3 mm.

Dark red-brown, palpi brighter red-brown, legs rather yellow-brown. Cephalothorax of usual shape, surface finely granulate, and

with many large, sharp, rough tubercles; a distinct eye-spot each side. Palpi long, slender; femur much longer than the cephalothorax plus mandibles, gradually thickened to tip, but nearly straight on each side; tibia plainly shorter than femur, but rather longer than the cephalothorax, at tip rather larger than tip of femur, inner margin straight, outer slightly convex; claw about as long as femur; hand nearly twice as wide as tibia, broadly rounded at base, tapering each side to fingers, which are about equal in length to the hand, and but slightly curved. Hairs on palpi are simple, but some on basal joints are thick and nearly clavate. Abdominal scutæ each with a roughened ridge, most prominent in the males.

Several specimens from Catalina Springs, Madera Canyon, and Oracle; in decaying *Cereus* and *Dasylirion*.

Type.—Cat. No. 5430, U.S.N.M.

CHELANOPS ARIZONENSIS, new species.

Length, 3 mm.

Cephalothorax very dark brown, abdominal scutæ brown, palpi clear red-brown, legs paler. Cephalothorax nearly smooth, with distinct furrows, and two faint eye-spots. Palpi large; trochanters globose behind; femur shorter than width of cephalothorax in middle, about two and one-half times as long as broad at base, slightly concave on inner margin near tip; tibia fully as long as femur, evenly convex on outer edge, strongly convex on middle of inner margin, in middle broader than femur; hand subtruncate at base, rounded each side and tapering slightly to the fingers, about one-fourth longer than broad; fingers as long as hand, stout, and slightly curved. Femur and tibia with short stout hairs, those on inner margin nearly clavate.

A few specimens from Catalina Springs, Santa Rita Mountains, and Oracle; in decaying *Cereus* and *Dasylirion*. In company with *Chelifer hubbardi*.

Type.—Cat. No. 5431, U.S.N.M.

SOLPUGIDA.

EREMOBATES CINEREA (Putnam).

Two males: Oracle, July; Madera Canyon, Santa Rita Mountains, June. Both attracted to lights.

AMMOTRECHA PENINSULANA (Banks).

Several specimens from Madera Canyon, Santa Rita Mountains, April. Not previously known north of Mexico.

ACARINA.

ARGAS SANCHEZI Dugès.

Catalina Springs, April; also Deming, New Mexico, July. Known as the "adobe tick."

IXODES, species.

Catalina Springs, April. On house bat; not adult, and therefore can not be identified with certainty.

EXPLANATION OF PLATE XXII.

- FIG. 1. *Thargalia luctuosa*, spider and vulva.
2. *Chelanops arizonensis*, palpus.
3. *Prothesima arizonensis*, vulva.
4. *Diploa parvula*, spider and vulva.
5. *Epeira arizonensis*, male palpus.
6. *Plectreurys tristis*, eyes.
7. *Prothesima schwarzi*, vulva.
8. *Sparassus minax*, male palpus.
9. *Chelifer hubbardi*, palpus.
10. *Philodromus marginellus*, spider and vulva.
11. *Chemmis unicolor*, vulva.